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UVCS Observat.ions of Coronal Streamers during the GALILEO and NEAR solar conjunctions

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The solar conjunctions of GALILEO between 11 and 28 January 1997, and NEAR between 18 February and 3 March 1997, offered unprecedented opportunities to probe the solar corona with radio scintillation, ultraviolet and white light measurements in a cotemporal manner. The trajectories of both spacecraft were in the ecliptic plane. Measurements were made in the S (13 cm) wavelength band with GALILEO and X (3.6 cm) wavelength band with NEAR. We present the results from the UVCS measurement.s on SOHO made in the oxygen, silicon and hydrogen lines as well as in the visible light. These measurements were obtained within a heliocentric distance of 5 R_s in the streamers observed on the east. and west limbs of the Sun during these two conjunctions. White Light observations out to 30 R_-s were also made with the LASCO coronagraphs on SOHO. Particular emphasis will be placed on the plasma parameters inferred from these observations, namely, electron density, temperatures and flow speeds of protons, and temperatures and flow speeds of oxygen and silicon ions. Inhomogeneities in the coronal plasma parameters will be derived from comparisons of the size of filamentary structures, inferred from the radio scintillation measurements [Woo, Nature, 1996] and filling factors derived from measurement-s of the hydrogen Lyman series lines.